

CHAOFAN WANG

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EDUCATION

Ph.D. Candidate of Human-Computer Interaction The University of Melbourne	February 2019 - Present
Master of Information Technology (with Distinction) The University of Melbourne	February 2017 - December 2018
Bachelor of Computer Science Hangzhou Dianzi University	September 2012 - June 2016

INTERESTS AND SKILLS

Research Interests	Human-Computer Interaction, Ubiquitous Computing, Medical Informatics
Program Languages	Python, Java, C/C++, SQL, Prolog
Technical Skills	Wearable Sensing (IMU, sEMG), Environmental Sensing (RGB camera, Thermal camera, Depth camera), Image Process (OpenCV), Android Development
Analysis Skills	Statistical Analysis, Machine Learning (TensorFlow, PyTorch, XGBoost, scikit-learn), Data Storage (Hadoop, Hive, MapReduce, MySQL), Data Visualization
Languages	Chinese (native), English (fluent, IELTS - 7.0)

WORK EXPERIENCE

Murdoch Children's Research Institute (MCRI) <i>Research Associate</i>	February 2020 - Present <i>Melbourne, Australia</i>
· Worked on Using Ubiquitous Sensing to Detect Episodes of Hand Hygiene (Field Study).	
The University of Melbourne <i>Head Tutor - COMP90018 (Mobile Computing Systems Programming)</i>	July 2019 - Present <i>Melbourne, Australia</i>
· Delivered tutorials to 110 students for Android application development.	
· Redesigned teaching materials used in the tutorials.	
ArcSoft <i>Software Quality Assurance Intern</i>	February 2016 - July 2016 <i>Hangzhou, China</i>
· Contributed to the automatic testing programs for Samsung's and LG's panorama cameras.	
· Recorded and summarize test cases for future product tests.	

PROJECTS

Using Computer Vision to Measure Quality of Hand Hygiene	October 2019 - Present
· Detect the hand surface coverage with antiseptic products after hand hygiene by environmental sensors, e.g., thermal camera and RGB camera;	
· Apply computer vision algorithms to measure the corresponding hand hygiene quality in medical settings.	
Using Wearable Sensor to Detect Episodes of Hand Hygiene	February 2019 - Present
· Detect episodes of hand hygiene with machine learning algorithms by wearable sensors, e.g., IMU and sEMG;	
· Examine the feasibility of monitoring the frequency and thoroughness of hand hygiene practices in medical settings.	

Using Environment and Calendar Data to Predict Emergency Admissions February 2019 - Present

- Design machine learning algorithms to predict emergency department admissions through environment data, calendar variables, and history admission records;
- Optimize the personnel flow in hospitals' emergency departments and determine the relevance of environment and calendar data towards emergency admissions.

iTime (time management application)

December 2017 - October 2018

Major Master Project Work

- iTime is a time management application, and its functions include managing private affairs, negotiating time slots of meetings, and publishing public events, etc.;
- Roles: 1) Developed Android application; 2) Adopted open-source frameworks to improve application performance; 3) Tested and fixed bugs from the previous versions.

RESEARCH PUBLICATIONS

1. Kangning Yang, **Chaofan Wang**, Yue Gu, Zhanna Sarsenbayeva, Benjamin Tag, Tilman Dingler, Greg Wadley, and Jorge Goncalves. Behavioral and physiological signals-based deep multimodal approach for mobile emotion recognition. *IEEE Transactions on Affective Computing*, pages 1–1, 2021 (Impact factor: 8.01)
2. Weiwei Jiang, Zhanna Sarsenbayeva, Niels van Berkel, **Chaofan Wang**, Difeng Yu, Jing Wei, Jorge Goncalves, and Vassilis Kostakos. User trust in assisted decision-making using miniaturized near-infrared spectroscopy. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, New York, NY, USA, 2021. Association for Computing Machinery (CORE - A*)
3. Difeng Yu, Weiwei Jiang, **Chaofan Wang**, Tilman Dingler, Eduardo Velloso, and Jorge Goncalves. Shadowdancxr: Body gesture digitization for low-cost extended reality (xr) headsets. In *Companion Proceedings of the 2020 Conference on Interactive Surfaces and Spaces*, page 79–80, New York, NY, USA, 2020. Association for Computing Machinery (ISS EA)
4. Kangning Yang, **Chaofan Wang**, Zhanna Sarsenbayeva, Benjamin Tag, Tilman Dingler, Greg Wadley, and Jorge Goncalves. Benchmarking commercial emotion detection systems using realistic distortions of facial image datasets. *The Visual Computer*, pages 1–20, 2020
5. **Chaofan Wang**, Zhanna Sarsenbayeva, Xiuge Chen, Tilman Dingler, Jorge Goncalves, and Vassilis Kostakos. Accurate measurement of handwash quality using sensor armbands: Instrument validation study. *JMIR Mhealth Uhealth*, 8(3):e17001, Mar 2020 (Impact factor: 4.77)
6. **Chaofan Wang**, Zhanna Sarsenbayeva, Chu Luo, Jorge Goncalves, and Vassilis Kostakos. Improving wearable sensor data quality using context markers. In *International Joint Conference on Pervasive and Ubiquitous Computing*, UbiComp Adjunct, 2019 (UbiComp EA)
7. Qiushi Zhou, Joshua Newn, Benjamin Tag, Hao-Ping Lee, **Chaofan Wang**, and Eduardo Velloso. Ubiquitous smart eyewear interactions using implicit sensing and unobtrusive information output. In *International Joint Conference on Pervasive and Ubiquitous Computing*, UbiComp Adjunct, 2019 (UbiComp EA)

ACADEMIC SERVICE

Reviewer for IMWUT, Journal of Medical Internet Research, JMIR mHealth and uHealth, OzCHI, etc.

AWARDS AND SCHOLARSHIPS

Research Training Program Scholarship (2019 - 2022)	The University of Melbourne
Dean's Honours List (2018)	The University of Melbourne
Commonwealth Supported Place (2018 - 2019)	The University of Melbourne
Third Prize Scholarships (2012 - 2015)	Hangzhou Dianzi University